

CLAIMS

What is claimed is:

1. An apparatus for reversibly trapping and isolating carbohydrate moieties, said apparatus comprising:
an aldehyde-containing trapping material;
a trapping means into which said aldehyde-containing trapping material is packable and through which hydrazine-activated carbohydrate-containing samples are passable; and
additional hydrazine to release hydrazine-activated carbohydrates from said trapping material such that all remaining non-carbohydrate material is not bound to said apparatus.
2. The apparatus of claim 1 wherein said trapping material is a polymer, which is oxidized, to form said aldehyde-containing trapping material.
3. The apparatus of claim 2 wherein said polymer is a carbohydrate polymer.
4. The apparatus of claim 3 wherein said carbohydrate polymer is dextran.
5. The apparatus of claim 1 wherein said trapping means is a micro-tip or other capillary-sized column.
6. The apparatus of claim 1 comprising a second trapping means coupled sequentially after said trapping means.
7. The apparatus of claim 6 wherein said second trapping means is a C-18 column for trapping protein and peptide material.
8. A kit for reversibly trapping and isolating carbohydrate moieties, said kit comprising:
 - a) an aldehyde-containing trapping material;
 - b) a trapping means into which said aldehyde-containing trapping material is packable and through which hydrazine-activated carbohydrate-containing samples are passable; and

c) additional hydrazine to release hydrazine-activated carbohydrates from said trapping material such that all remaining non-carbohydrate material is not bound to said apparatus.

9. The kit of claim 8 wherein said trapping material is a polymer, which is oxidized, to form said aldehyde-containing trapping material.
10. The kit of claim 9 wherein said polymer is a carbohydrate polymer.
11. The kit of claim 10 wherein said carbohydrate polymer is dextran.
12. The kit of claim 8 wherein said trapping means is a micro-tip or other capillary-sized column.
13. The kit of claim 8 comprising a second trapping means coupled sequentially after said trapping means.
14. The kit of claim 13 wherein said second trapping means is a C-18 column for trapping protein and peptide material.
15. A system for reversibly trapping and isolating carbohydrate moieties, said system comprising:
 - an aldehyde-containing trapping material;
 - a trapping means into which said aldehyde-containing trapping material is packable and through which hydrazine-activated carbohydrate-containing samples are passable; and
 - additional hydrazine to release hydrazine-activated carbohydrates from said trapping material such that all remaining non-carbohydrate material is not bound to said apparatus.
16. The system of claim 15 wherein said trapping material is a polymer, which is oxidized, to form said aldehyde-containing trapping material.
17. The system of claim 16 wherein said polymer is a carbohydrate polymer.

18. The system of claim 17 wherein said carbohydrate polymer is dextran.
19. The system of claim 15 wherein said trapping means is a micro-tip or other capillary-sized column.
20. The system of claim 15 comprising a second trapping means coupled sequentially after said trapping means.
21. The system of claim 20 wherein said second trapping means is a C-18 column for trapping protein and peptide material.